

ABSTRACT

Even when only a small number of reference images are available for each object, it is possible to search at high speed a reference image stored in a database from an input image of an object imaged with a different pose and
5 a different illumination condition. A reference image matching result storage section (50) inputs reference images from a reference image storage section (70) and stores in advance results of matching of the input images with representative 3-dimensional object models of a representative 3-dimensional object model storage section (20). According to each
10 representative 3-dimensional object model, image generation means (30) generates a comparison image having an input condition similar to the input image obtained from the image input means (10). Image matching means (40) calculates similarity between the input image and the image generated. Result matching means (60) calculates similarity between the
15 matching result of the image matching means (40) and the reference image stored in the reference image matching result storage section (50), extracts reference images having similar matching results in the descending order of the similarity, and displays them on result display means (80).